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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/057,898

01/29/2002

Eiichi Takami

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08/26/2004

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EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,898

Applicant(s)

TAKAMI ET AL.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-26,28-36 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-26,28-36 and 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 2, 2004 has been entered.

Claims 23-26, 28-36 and 55 are currently pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 23-26, 28-36 and 55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 55, lines 1-2, "the photoelectric conversion device" lacks proper antecedent basis. Further, it is unclear in its given context what the phrase "stacked and arranged on the photoelectric conversion elements..." modify. If it is in fact the conductive member which is "stacked and arranged", then the wavelength converting member is disposed between the photoelectric conversion elements and what?

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 23-26, 28-32, 35 and 55, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Crowell et al. (U.S. Patent 5,804,832).

Regarding claims 23-26, 28-32, 35 and 55, Crowell et al. disclose (see Figs. 4 and 5) an imaging apparatus comprising: a photoelectric conversion device (13) having a conductive member (38; see col. 6, lines 35-45), a plurality of substrates (24) each having a plurality of photoelectric conversion elements (26), the plurality of substrates being arranged adjacent each other in a plane, a wavelength converting member (phosphor 74) disposed between the photoelectric conversion elements and the conductive member, wherein the conductive member is (see col. 6, lines 35-45) a metal (aluminum) and is grounded. Crowell et al. also disclose (see Fig. 3) a housing (table; see slot underneath surface 18; see also col. 3, lines 60-65) for the photoelectric conversion device and a control circuit (circuitry of 13), wherein the conductive member is disposed between the housing and the wavelength converting member. In addition, Crowell et al. disclose (see Fig. 5) a spaced formed between the substrate and the conductive member, and an area of the conductive member overlaps the photoelectric

conversion elements. Crowell et al. also disclose (see Figs. 5 and 7) the conductive member is sealed and extends over the outer edges of the substrates as claimed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowell et al.

Regarding claim 36, Crowell et al. disclose the claimed invention as set forth above. Crowell et al. do not specifically disclose the thickness of the metal layer. However, choosing a desired thickness of a layer is design choice and would require only routine skill in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a metal layer having a thickness of 100 microns or less in the apparatus of Crowell et al. to reduce the amount of metal used and reduce the costs associated with fabrication.

Regarding claims 33 and 34, Crowell et al. disclose the claimed invention as set forth above. Crowell et al. also disclose (see Figure 7) an adhesive used to seal the device. Crowell et al. do not specifically disclose a resin provided in the space as claimed. However, resins and adhesives are notoriously well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made

to provide a resin in the device of Crowell et al. to provide further protection for the device as desired.

Response to Arguments

8. Applicant's arguments filed July 2, 2004 have been fully considered but they are not persuasive.

Applicant asserts that Crowell et al. do not disclose a housing and the conductive member disposed between the housing and the wavelength converting member. Examiner disagrees. As shown in Figs. 2 and 3 of Crowell et al., the photoelectric conversion device is inserted into a slot in a table. As understood, the table houses the photoelectric conversion device as claimed.

Thus, as set forth above, this rejection is proper.

Conclusion

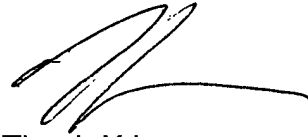
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X Luu whose telephone number is (571) 272-2441. The examiner can normally be reached on M-F (6:30-4:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a stylized 'T' followed by a horizontal line that curves upwards at the end.

Thanh X Luu
Primary Examiner
Art Unit 2878

08/2004